

Premium Luxury Vinyl Flooring Installation Instructions for MSI 2MM and 2.5MM Glue-Down Products

General Information

It is important that MSI flexible glue-down flooring products maintain proper temperature before, during, and after installation in order to minimize dimensional changes. The subfloor, all flooring material, and the adhesive must be conditioned at a constant temperature between 65°F (18°C) and 85°F (29°C) for 48 hours prior to, during, and 48 hours after installation. Thereafter, maintain a room temperature between 55°F (13°C) and 95°F (35°C). When using flooring from two or more cartons, make sure pattern and run numbers found on the carton are the same. This information is on the outside end of each carton.

Tools and materials

- Universal pressure sensitive LVT adhesive or Multi-use LVT adhesive
- Trowel (1/16" x 1/32" x 1/32" for adhesive)
- 100 pound, 3 section roller
- Chalk Line
- Carpenter square
- Utility Knife
- Cutting board
- Tape measure
- In Situ probes, Moisture Meter, and/or Calcium Chloride Test Kit

Preparing the Area

- Remove all furniture, appliances, and fixtures from the room.
- Remove all binding strips or other restrictive molding from doorways, walls, etc.
- Undercut wood door casings where possible so that flooring can be slid under it

Subfloor Preparation

Asbestos Warning

WARNING! DO NOT MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES. Installed resilient floor covering products and the asphaltic or cutback adhesives used to adhere them may contain either asbestos fibers and/or crystalline silica. The products in this carton DO NOT contain asbestos or crystalline silica. Avoid creating dust or inhalation of asbestos/crystalline dust as they can cause cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the previously installed product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient



Floor Covering Institute (WWW.RFCI.com) publication "Recommended Work Practices for Removal of Resilient Floor Coverings" for detailed information and instructions on removing all resilient covering structures.

Subfloor Preparation

All subfloor surfaces must be flat, clean, dry, smooth, and free of movement. All surface imperfections should be filled and sanded with a Portland cement-based latex patching compound.

Flat within 3/16" in a 10' radius and or 1/8" in a 6' radius. Sand high areas or joints. Fill low areas with a high compressive strength Portland base compound.

Completely remove all residual adhesive with an approved method on previously covered concrete floors or cover them with an **Adhesive Encapsulator** or cementitious underlayment intended for this purpose. Never use solvent-based adhesive removers.

Dry – Select the appropriate moisture indicator test specifically designed for use with wood or concrete subfloors. Test and record moisture content results. **DO NOT INSTALL FLOORING IF MOISTURE TEST RESULTS EXCEED RECOMMENDED LIMITS. (WWW.RFCI.com)**

Concrete Subfloors

- 1. Concrete subfloors must be dry, smooth, and free from dust, solvent, paint, wax, grease, asphalt sealing compounds, and oil or other materials. The surface must be hard and dense, and free from powder or flaking. If surface is dusty but meets all other requirements, use a *Floor Primer* to prepare the surface for adhesive application.
- 2. New concrete slabs must be thoroughly dry (at least six weeks) and completely cured. Curing agents, surface hardeners and other additives may cause adhesive bonding failure. These should be removed by sanding or grinding. 3.
- Moisture arising from new or old concrete can create high levels of moisture vapor emissions, hydrostatic pressure, and high levels of alkalinity. This combination is highly corrosive and will damage the floor over time. To avoid this problem, ensure that concrete subfloors are constructed according to the American Concrete Institution's guidelines (ACI's 302.2 Guide). To check current conditions, a calcium chloride test (ASTM F1869) and a RH test using in situ Probes (ASTM F2170) is necessary. If the level of vapor emissions / hydrostatic pressure exceeds 6lbs and /or 90% RH, you must use a *Multi-use LVT adhesive* for the install. Responsibility for determining if the concrete is dry enough for installation of the flooring lies with the owner and installer.
- 4. If there is old adhesive present from a previous install, you must remove all surface residue. Once you remove all surface residue, use an *Adhesive Encapsulator* to prepare the subfloor for the adhesive and a proper bond.

Wood Subfloors

NOTE: As with many other interior finish products, modification of existing structural components may be required for a successful installation.

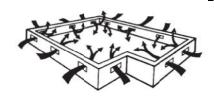
1. Nail or screw any areas that are loose or squeak. Wood panels should exhibit an adequate fastening pattern. They should be glued, screwed, or nailed as that system requires, using an acceptable pattern, typically, 6" along bearing edges and 12" along intermediate supports. Flatten edge swell as necessary and replace any water-damaged, swollen, or delaminated subflooring or underlayment.



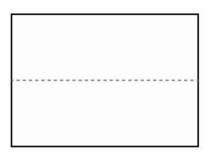
- 2. Wood subfloor panels should be a minimum of 1" or thicker and free of vertical deflection. All fasteners must be flush with the subfloor panels.
- 3. Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene membrane is required to cover 100% of the crawl space earth. The crawl space clearance from ground to underside of joist should be no less than 18" and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation.

Floor Layout

First, determine the installation direction normally installed running in the long in the center of the floor at each end of the marks.

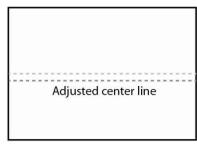


of the planks. Generally, planks are direction of the main room. Place a mark the room and snap a chalk line between



Original Center Line

To avoid small narrow planks along the walls, divide the distance from the center line to the wall by the plank width (6"). If the remainder is less than 3 inches, adjust the center line one half width of a plank in either direction. This will provide a balanced layout with larger cut pieces at the wall.



Center line after adjustment



Finished Flooring Installation

Using the provided trowel adapter, spread the adhesive over one half of the floor up to the center line. Do not apply excessive adhesive. Allow the adhesive to dry to tack before installing the plank (see adhesive pail label for clarifications). Allow the adhesive to dry completely to tack prior to flooring installation.

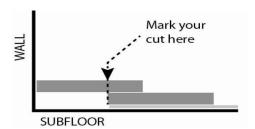
Start installing the plank along the center line. Complete each row, including cut pieces at the wall, before proceeding to the next row. Offset end joints by at least six inches and position planks in a random fashion, working out of three - four cartons for the best appearance. Position each plank lightly against the previous one by pressing it firmly into place without sliding it. Remember to avoid small cuts of less than 6 inches at the ends of each row and place the cut ends towards the wall.

If it is necessary to adjust or remove a plank, use a heat gun to first warm the plank. Complete the opposite side of the room in the same fashion as the previous side.

Cutting a plank to fit

The last row of planks will need to be cut to fit to walls and other vertical surfaces.

Straight Cuts: place a loose plank directly over the top of the last full installed plank, making sure to line up all edges. Using a plank to measure the distance from the wall to the last installed plank, position the edge against the wall and mark the loose plank with a pencil where it meets the installed plank at the opposite edge from the wall.



Next, place the marked plank on a cutting board. Using a carpenter square as a guide, score the pencil line carefully with a sharp knife, then break/snap (or cut) the plank along the score mark.

CAUTION: Keep fingers away from the knife blade to avoid injury. Install plank with the cut edge toward the wall.

Irregular cuts: Scribe plank to fit irregular shapes such as door trims, pipes, etc., and cut with a utility knife.

Immediately after Installation

Roll the entire floor with a 100 pound 3 section roller. Restrict to light traffic for the first 24 hours. Replace the base moldings and return appliances and furniture to the room by rolling or sliding them over strips of hardboard. Seal all areas that may be exposed to surface spills (i.e. tubs, toilets, and showers) with silicone caulking.



Plank repairs

- Warm the plank with a heat gun
- Using a sharp utility knife, cut through a corner of the damaged plank taking care not to cut into the subfloor below.
- Lift the end of the plank and continue heating
- As sufficient heat is provided the plank will release from the adhesive
- Lift out the entire plank and warm the exposed adhesive 4nstall the new plank
- Set the new plank firmly into place with a hand roller
- The repair is complete **Tips & Warnings**:
- Sweep regularly, with a soft bristle broom.
- Use felt protectors under heavy pieces of furniture and chairs.
- Use protective mats at all exterior entrances. Do not use mats or area rug cushions constructed of rubber or PVC. Instead use urethane backed products.
- Spiked heels or shoes in need of repair can severely damage your floor.
- Replace hard plastic, metal casters or wheels on furniture with soft rubber casters or by using a protective mat under the casters.
- The sun's UV rays can change the color of your floor.
- Keep animal nails trimmed.
- Protect your floor when using a dolly for moving furniture or appliances. Never slide or roll heavy furniture or appliances across the floor.

WARRANTY COVERAGE

Manufacturing Defect: During the period of the warranty, this product will be free from manufacturing defects.

Wear Resistance: During the period of the warranty, this product's wear layer will not wear through to the decorative layer under normal use. Excessive wear due to improper maintenance or care is not a defect in the wear layer or product.

What is NOT Covered by this Warranty (item list is not exhaustive)

- Improper Installation: Material installed that is not installed in accordance with Installation Instructions is not a manufacturing related defect. Installer workmanship is not warranted. □ Labor cost to repair or replace material installed with visible imperfections □ Improper maintenance, which results in loss of gloss level.
- Damage resulting from use of strong detergents, chemicals, paints, dyes, mats, fertilizers, or other similar materials.
- Damage caused by moving appliances or heavy furniture without protecting the floor. (Always protect floor by using protective covering when moving heavy objects.

^{*}Exterior walk off mats should be routinely maintained to avoid becoming a soil source.



- Damage or scratches resulting from accidents, casualty events, abuse or improper usage (including damage from pet claws, teeth, urine etc.). Accidents, abuse and improper usage are defined as, but are not limited to damage caused by: casters on furniture, rotating beater bars on vacuum cleaners, burns, cuts, impact from heavy and sharp objects, narrow or spike heels, cleats, etc., as well as, damage resulting from unprotected furniture legs.
- Damage caused by leaks from appliances or plumbing.
- Construction damage after installation.
- Installation-related errors or damage including improper conditioning of jobsite and flooring materials.
- Fading, discoloration, or other damage due to excessive temperatures or sunlight. Radiant heat must not exceed 85 ° F (29°C) and be approved by the manufacturer for the use of their product with resilient vinyl flooring applications.
- Problems or damage due to excessive moisture or hydrostatic pressure from the sub-floor.
- Discoloration caused by use of latex or rubber-backed floor mats. Note: some synthetic backed carpets contain latex in the manufacturing process that may discolor vinyl. Always use mats marked as "nonstaining."
- Discoloration caused by rubber pads, rubber wheels, rubber tires, rubber rollers, automotive tires, etc.
- Flooring installed on stairs is excluded from warranty coverage.
- Installation of residential product in a commercial environment.

If the product fails to perform as stated in the warranty, MSI reserves the right to have the product inspected by a certified inspector. Should product be determined to be defective, MSI reserves the right to either repair or replace the defective area with the same color, design and grade product, if available. If product is unavailable or discontinued, MSI reserves the right to select and supply similar material.

- If repairs or replacement of a section is deemed necessary, all items must be cleared from the affected area subsequent to the original installation. The cost associated with the removal of those items will not be credited or reimbursed.
- Product costs will be covered for the length of warranty.
- Labor cost will not be covered.
- Warranty coverage for the replacement floor will be limited to the remaining portion of the original warranty.
- Any additional claims for loss of profit or incidental losses due to defective product will not be
 considered. Some examples of incidental damages are: replacement of subfloors or underlayment, trim
 moldings, disconnecting / reconnecting appliances, moving of furniture or any other losses deemed
 incidental by MSI.

Failure to follow these procedures may result in voiding some or all of the warranty. This limited warranty is not transferable and extends only to the original end user.

Please note: Some jurisdictions do not allow exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitation and exclusion may not apply to you.

This warranty gives you specific rights and you may also have other rights, which vary from state to state.